

Patent Claims

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1. Use of a shank-end tool with permanently attached wing-like inserts for the milling-type machining of chipless materials for the manufacture of heat-resistant molds, especially sand molds containing binders for producing metal castings, characterized by a shank (1) rotatable around its longitudinal axis (2) that can be connected detachably to a drive device and is provided at its free end section (6) with at least one groove-shaped recess (7) extending in the axial direction and one flat cutter blade (8), which is provided with a non-cutting blade edge (12) on its leading face viewed in the direction of advance (9).
 2. Use pursuant to Patent Claim 1, characterized by the fact that the cutter blade (8) is made as a part punched out of a flat blank made of steel, wear-resistant steel, or a suitable wear-resistant material, and is provided with an outer blade surface at a right angle to the flat face (11).
 3. Use pursuant to one of the Patent Claims 1 to 2, characterized by the fact that the blade edge (12) and the trailing edge (13) of the cutter blade (8) behind the blade edge (12) viewed in the direction of advance (9) are given a radius or are rounded.
 4. Use pursuant to one of the Patent Claims 1 to 3, characterized by the fact that the cutter blade (8) has the basic form of a square or rectangular blank, and/or is provided on the face with rounding (17) or corners (18) cut at an angle.
 5. Use pursuant to one of the Patent Claims 1 to 3, characterized by the fact that the cutter blade (8) is provided with a circular arc-shaped or conical outer contour.
 6. Use pursuant to one of the Patent Claims 1 to 5, characterized by the fact that the cutter blade (8) is provided with curvature (22) or bending (23) parallel to the longitudinal axis (2), with the convex face of the curvature (22) or of the bend (23) pointing in the direction of rotation (24).

7. Use pursuant to one of the Patent Claims 1 to 6, characterized by the fact that the cutter blade (8) has shovel-like blade folds (25) that are sloped with a blade angle (26) relative to the longitudinal axis (2), to produce fan-like action.
8. Use pursuant to one of the Patent Claims 1 to 7, characterized by the fact that the cutter blade (8) is made of a metallic high strength elastically deformable or springy blade material.
9. Use pursuant to one or more of the Patent Claims 1 to 8, characterized by the fact that the cutter blade (8) has a steel base material and is provided with a wear-protective covering (15) on its leading flat face (11) consisting of a hard substance or a metal composite containing hard substances or a metal alloy containing a hard substance.
10. Use pursuant to one or more of the Patent Claims 1 to 9, characterized by the fact that the shank (1) has a tubular or cylindrical hollow body (5) at least in the area of the cutter blade holder (4).